

Application No. 10/568,784
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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A molding apparatus (1) including a moving mold (10) for shaping molten plastic into product made within said moving mold (10), said moving mold includes opposed mold blocks which meet in a closed mold block configuration to define the moving mold in a forward run of said mold blocks with said separating mold blocks to an open configuration in a return run of said mold blocks, said moving mold (10) being surrounded by an air block housing (11) in said forward run and said return run of said mold blocks to define a cooling chamber (13) exteriorly around said moving mold (10), a source of cooling air (24), the cooling air (24) being contained by said housing (11) within said cooling chamber (13) to act on and provide cooling of said moving mold (10); said cooling chamber maintaining a trapped cooled air environment about said moving mold.

2. (original) Apparatus (1) as claimed in Claim 1 wherein the source of cooling air (24) comprises at least one cooling air unit (21, 25).

3. (currently amended) Apparatus (1) as claimed in Claim 2 wherein said cooling unit (21, 25) is located internally of said air block housing (11).

4. (original) Molding apparatus (1) as claimed in Claim 3 including at least one blower (27) for circulating the cooled air (24) within said cooling chamber (13).

5. (original) Apparatus as claimed in Claim 2 wherein said cooling unit (21, 25) is located externally of said air block housing (11), said apparatus including ducting (15) from said unit (21,

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25) to said air block housing (11) and a blower (27) for moving the cooled air from said cooling unit (21, 25) through said ducting into air block housing (11).

6. (original) Molding apparatus as claimed in Claim 1 wherein said source of cooling air (24) comprises cooled ambient air externally of said cooling chamber (13), said apparatus including ducting (15) from said housing (11) to the source of cooling air.

7. (original) Molding apparatus as claimed in Claim 6 including blower means (15) to move the cooling air from said source through said ducting (15) into said cooling chamber (13).

8. (original) Apparatus as claimed in Claim 1 wherein said air block housing (11) is insulated to minimize heat loss of the cooling air (24) through said housing (11).

9. (original) Apparatus as claimed in Claim 8 including access doors (47, 49) through said housing to said moving mold (10), said access doors (47, 49) also being insulated.

10. (original) Apparatus as claimed in Claim 9 including an alarm (51) that indicates opening of said access doors (47, 49).

11. (original) Apparatus as claimed in Claim 1 including extruder die tooling feeding into said moving mold (10) at one end of said housing (11) and further including a heater for heating said die tooling to offset effect of the cooling air in said cooling chamber on the die tooling.

12. (original) Apparatus as claimed in Claim 1 wherein said moving mold (10) comprises a pipe corrugator (7, 9).

13. (original) Apparatus as claimed in Claim 1 wherein said moving

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mold (10) travels in a vertical direction through said cooling chamber (13).

14. (original) Apparatus as claimed in Claim 1 wherein said moving mold (10) travels in a horizontal direction through said cooling chamber (13).

15. (original) Apparatus as claimed in Claim 1 including a product cooler (17) downstream of said air block housing (11), said product cooler (17) being inline with and receiving the plastic product from said moving mold (10) and comprising a cooler housing around the product, and a heat exchanger within said cooler housing, said heat exchanger in said cooler housing providing cooled air which is trapped within the cooler housing to act on the product after the product is released from the moving mold.

16. (original) Apparatus as claimed in Claim 1 including a plurality of heat exchangers (21, 25) located within said cooling chamber (13), said plurality of heat exchangers (21, 25) including first and second heat exchangers located to opposite sides of said moving mold (10).

17. (currently amended) Apparatus as claimed in Claim 1 wherein ~~said moving mold (10) comprises mold block sections (7, 9) which move in a downstream direction through said cooling chamber (13) in a closed mold block configuration and which move upstream of said cooling chamber in an open mold block section configuration, said apparatus including first and second heat exchangers (21) located to first and second sides of said moving mold (10) and directed at said mold block sections (7, 9) in the closed mold block configuration, and further including includes third and fourth heat exchangers (25) to third and fourth sides of said~~

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moving mold and directed at said mold block sections (7, 9) in
the open mold block section configuration.